

ConocoPhillips Company San Francisco Refinery 1380 San Pablo Avenue Rodeo, CA 94572

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January 27, 2012

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

ESDR-033-12 05-B-01-C

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Mr. Brian Bateman Director of Compliance and Enforcement Bay Area Air Quality Management District 939 Ellis Street San Francisco, CA 94109

Attn: Title V Reports

Subject:

Six-month Monitoring Report for July 1, 2011 through December 31, 2011

ConocoPhillips San Francisco Refinery - Plant No. A0016

Mr. Bateman:

ConocoPhillips is submitting its Monitoring Report covering the period of July 1, 2011 through December 31, 2011 as required by section I.F in its Title V permit.

If you have any questions, or require additional information on the information contained in this report, please contact Mr. Brent Eastep at (510) 245-4672.

Sincerely,

Don Bristol, Superintendent Environmental Department

Attachment

cc: Mr. Kevin Vo, BAAQMD inspector via e-mail (KVo@baagmd.gov)

BAAQMD Title V Permit 6 Month Deviation Summary Report From 7/1/2011 to 12/31/2011 San Francisco Refinery, A0016

Certification Statement

I certify under penalty of law that based on the information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate, and complete.

X Land It Surename

Rand Swenson
Print Name

Refinery Manager Title

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BAAQMD Title V Permit 6 Month Deviation Summary Report From 7/1/2011 to 12/31/2011

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Title V deviations for the reporting period are summarized below:

	Stopped: 11/10/2011	Event Started: 4/30/2011	Deviation No: 033-11		1年至六年,145年至11日年11日年11日	
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	Emission Point(s):	batement Device(s):	Source Number(s): 448			
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Event Description:: Tank 1007 (\$448) exceeded its rolling 12 month throughput limit of 2,190,000 barrels. This limit was established when Tank 1007 was in alkylate/cracked naphtha. service, which had a low throughput rate. The throughput increased over historical levels due to a change in service to a diesel storage tank.

Probable Cause: The change in service led to a higher throughput than the tank had historically. In addition, as part of a recent permit modification, the applicable regulations section of the permit was modified to allow Tank 1007 to operate as exempt from Regulation 8-5 when storing diesel and other exempt materials. As part of the permit process, the throughput limit should have been removed when the tank is in exempt service.

preventative steps taken: Corrective actions or A permit to operate was received (App #23754) which removed the throughput limit when the tank is in exempt service

Other:	(s):	Emission Point(s):	7/12/2011 1:33 PM	: 7/12/2011
AQMD: 8-18-301	(5):	Abatement Device(s):	9:58 AM	: 7/12/2011 9:58 AM
Permit:	(s): 300; 43	Source Number(s): 300; 43		034-11
May have resulted in a deviation from:				

Event Started

Stopped

Deviation No

Event Description: BAAQMD inspector Kevin Vo discovered a Venturi Eductor underneath B-202 in Unit 200 leaking in excess of the 100 ppm VOC threshold. ConocoPhillips repaired and reinspected the Venturi Eductor pursuant to the applicable rule.

ConocoPhilips received NOV A52106 on July 12th, 2011,

Probable Cause: The Venturi Eductor needed to be tightened.

Corrective actions or The Venturi Eductor was tightened.

preventative steps taken:

Other:	Emission Point(s):	Stopped: 7/20/2011 4:30 PM
AQMD: 8-5-306.2	Abatement Device(s) :	Event Started: 7/20/2011 10:48 AM
Permit:	Source Number(s): 182	Deviation No: 036-11
May have resulted in a deviation from:		

Event Description: BAAQMD performed an LDAR/Tank inspection on 7/20/2011. A leak in excess of the leak threshold was found on top of Tank 294 on a sample port. The sample port was located inside of a sample hatch. The inspector had to first open the lid on the sample hatch in order to access the sample port. The inspector did not detect any

emissions when the hatch lid was dosed. ConocoPhillips repaired the leak as quickly as possible.

Probable Cause: The sample port was not fully tightened down after a sampling event Corrective actions or The sample port was tightened.

preventative steps taken:

Event Started: 7/6/2011

9:00 PM 1:45 PM

Stopped: 8/15/2011

Emission Point(s):

Deviation No: 038-11

May have resulted in a deviation from:

Abatement Device(s): Source Number(s): 7 Permit: AQMD: 1-523.1; 1-523.2 Ξ

Other:

Event Description: The Unit 231 B-103 (S#7) O2 parametric monitor became inoperative on 7/6/2011, but due to an inadvertent communications error, ConocoPhillips did not report the some conduit and wiring changes were made which ConocoPhillips accomplished while awaiting receipt of the transmitter). In the interim, ConocoPhillips monitored the the monitor and brought it back online (because the exact replacement control cards and transmitters are no longer available, use of a suitable replacement required that within the required 15 days due to the amount of time it took to receive the part from the manufacturer. Once the part was received. ConocoPhillips promotly repaired portion of the O2 analyzer had failed and required repairs. ConocoPhillips promptly ordered a replacement. ConocoPhillips was unable to fix the inoperative monitor. 02 levels several times per day with a portable analyzer monitor as inoperative the next business day. Following its investigation regarding the equipment malfunction, ConocoPhilips concluded that the Oximiter Transmitter

Probable Cause: The monitor amplifier board needed to be replaced.

Corrective actions or <u>The board was replaced and the monitor was returned to service</u>, preventative steps taken:

Page 2 of 10

Event Description: Probable Cause: Corrective actions or	Deviation No: 042-11 Event Started: 8/8/2011 Stopped: 8/8/2011	Probable Cause: Corrective actions or preventative steps taken: IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Deviation No: 041-11 Event Started: 6/28/2011 Stopped: 6/28/2011 Event Description:	Event Description: Expression by the course of the course	Deviation No: 039-11 Event Started: 8/2/2011
On 8/8/11, the NOx CEMs at the hours from 2 pm to 5 pm with a conocoPhillips believes the NOx the nozzle failed due to plugging. Two replacement porries were on the conocoping of the nozzle failed due to plugging.	2:00 PM 5:00 PM	ConocoPhillips believes th Debris, was found in the valum in the valuming a vacuum in the gas into the tank head spas into the tank head spas finto the tank head spass relief valve to vapors to the atmosphere	 	During routine LDAR monitoring, technicians discovery. the OEL within an hour of discovery. Failure to put the plug back into place after sampling the plug was replaced within an hour of discovery. The plug was replaced within an hour of discovery.	12:40 PM
with a maximum v with a maximum v with a maximum v ie NOx excess resultingting.		at a natural gas bia acuum relief valve bank due to advers ace which presuma negative pressure the odor abatemer to the extent such	d a Notice of Viola	discovery. discovery. dx into place after s thin an hour of disc	
On 8/8/11, the NOx CEMs at the U228 B-520/521 heater indicated an excess of the 3 hour average NOx limit of 20 ppm @ 3% O2. The indicated excess occurred for 3 hours from 2 pm to 5 pm with a maximum value of 39.84 ppm. A breakdown end excess were filed for this event on 8/8/11 (ID 06806 and 06807). ConocoPhillips believes the NOx excess resulted from a failed ammonia injection nozzle that prevented the flow of ammonia to the SCR unit. ConocoPhillips believes the nozzle failed due to plugging. Two replacement pozzles were ordered. The nozzle was changed out and is now on an 18 month for conocol change.	Source Number(s): 371; 372 Abatement Device(s): 17 Emission Point(s):	Probable Cause: ConocoPhillips believes that a natural gas blanket control system and vacuum relief valve malfunction on Tank 284 may have caused a vapor release to atmosphere. Debris was found in the vacuum relief valve indicating a potential for gas to be released to atmosphere during the event. The pressure indicator on the tank was falsely. Showing a vacuum in the tank due to adverse weather conditions, Due to the false negative pressure reading in the tank, the natural gas valve opened allowing natural gas into the tank head space which presumably led to the release of vapors to the atmosphere through the vacuum relief valve. Corrective actions or After determining that the negative pressure reading at Tank 284 was incorrect and that natural gas was flowing into the tank, the natural gas valve was blocked off and preventative steps taken: the bypass relief valve to the odor abatement compressors was opened. This allowed the pressure in the tank to decrease, which subsequently eliminated the release of vapors to the atmosphere to the atmosphere to the extent such release was occurring. The debris was removed from the vacuum relief valve which allowed the valve to close normally. Examinating the fall of the control of the atmosphere to the valve which allowed the valve which allowed the valve to close normally.	on No: 041-11 Source Number(s): 175; 175 P tarted: 6/28/2011 Abatement Device(s): 7 A opped: 6/28/2011 Emission Point(s): (175, 175) A Event Description: On 8/4/11 BAAQMD issued a Notice of Violation for a Public Nuisance due to 6 confirmed odor complaints on 6/28/11.	During routine LDAR monitoring, technicians discovered an open-ended line (OEL) in Unit the OEL within an hour of discovery. Failure to put the plug back into place after sampling or draining the line. The plug was replaced within an hour of discovery.	Source Number(s): 300 Abatement Device(s): 24 PM Emission Point(s):
n end excess were filed for this tion nozzle that prevented the		cuum relief valve malfunction on T s. to be released to atmosphere du o the false negative pressure read to the false negative pressure read tors to the atmosphere through the correct and that natural gas was 1 This allowed the pressure in the todebris was removed from the vacual management of the pressure of the todebris was removed from the vacual management of the vacual mana	5 confirmed odor complaints		
imit of 20 ppm @ 3% is event on 8/8/11 (ID a flow of ammonia to the second seco	Permit: 16 AQMD: Other:	lank 284 may have canning the event. The printing in the tank, the nate in the printing in the tank, the nate is vaccum relief valve. It is to decrease, which is to decrease, which is the tank to decrease, which is the tank to decrease.	ermit QMD Other	gate valve that was m	Permit: AQMD: Other: 40
r average. NOx limit of 20 ppm @ 3% O2. The indicated excess occurred for 3 were filed for this event on 8/8/11 (ID 06806 and 06807). at prevented the flow of ammonia to the SCR unit. ConocoPhillips believes that the screen of the screen o	May have resulted in a deviation from: nit: 1694 C 2 ID:	malfunction on Tank 284 may have caused a vapor release to atmosphere, a atmosphere during the event. The pressure indicator on the tank was falsely, be pressure reading in the tank, the natural gas valve opened allowing natural there through the vaccum relief valve. The pressure is the vaccum relief valve. The pressure in the tank to decrease, which subsequently eliminated the release of the form the vacuum relief valve which allowed the valve to dose normally, and from the vacuum relief valve which allowed the valve to dose normally.	May have resulted in a deviation from: 1-301	200 on a 0.75" gate valve that was missing a plug. ConocoPhillips repaired	May have resulted in a deviation from: Permit: AQMD: Other: 40 CFR 60 .482-6
ss occurred for 3	ation from:	atmosphere. Lank was falsely. Allowing natural as blocked off and the release of lose normally. Intelligibilities in the control of the cont	ation from:	hillips repaired	don from:

preventative steps taken:

Probable Cause: <u>Increase in temperature and</u> Corrective actions or <u>After the increased TVP was</u>	Event Description: <u>During voluntary periodic ve</u> <u>external floating roof tank the control of tank the control of tank the control of the ingreased TVP was the 11 psia limit. TVP below the 11 psia limit.</u>	Stopped: 10/26/2011	Event Started: 10/24/2011	Deviation No: 049-11		Corrective actions or After the increased TVP was preventative steps taken: TVP below the 11 psia limit.	Probable Cause: Increase in temperature and RVP of the material	Event Description: During voluntary periodic ve external floating roof tank the ConocoPhillips calculates TVP was After the increased TVP was TVP below the 11 psia limit.	Stopped: 9/8/2011	Event Started: 8/25/2011	Deviation No: 046-11	
Increase in temperature and RVP of the material. After the increased TVP was discovered, the feed to Tank 167 was stopped and routed to another tank to allow the temperature in Tank 167 to drop, which reduced the TVP below the 11 recis limit.	rification of true vapor pressure (TVP) for Tank 167, ConocoPhillips nat stores naghtha, which is blended into finished gasoline at Unit 7 P for purposes of complying with this limit using Reid vapor pressure discovered, the feed to Tank 167 was stopped and routed to another the feed to the feed	Emission Point(s):	Abatement Device(s) :	Source Number(s): 122		overed, the feed to Tank 167 was stopped and routed to anot	ture and RVP of the material.	rification of true vapor pressure (TVP) for Tank 167, ConocoPhillips nat stores naphtha, which is blended into finished gasoline at Unit 7 P for purposes of complying with this limit using Reid vapor pressure discovered, the feed to Tank 167 was stopped and routed to another the feed to Tank 167 was stopped and routed to the feed to Tank 167 was stopped and routed to the feed to Tank 167 was stopped and routed to the feed to Tank 167 was stopped and routed to the feed to Tank 167 was stopped and routed to the feed to Tank 167 was stopped and routed to the feed to Tank 167 was stopped and routed to the feed to Tank 167 was stopped and routed to the feed to Tank 167 was stopped and routed to the feed to th	Emission Point(s):	Abatement Device(s) :	Source Number(s): 122	
er tank to allow the temperature in Tank 167 to drop, which reduced the	discovered that the limit of 11 psia had been exceeded. Tank 167 is an 6. e. (RVP) and temperature measurements. her tank to allow the temperature in Tank 167 to drop, which reduced the	Other:	AQMD: 8-5-301	Permit: 22963-1	May have resulted in a deviation from:	er tank to allow the temperature in Tank 167 to drop, which reduced the		discovered that the limit of 11 psia had been exceeded. Tank 167 is an 6. (RVP) and temperature measurements. Tank to allow the temperature in Tank 167 to drop, which reduced the	Other:	AQMD: 8-5-301	Permit: 22963-1	entropy of the state of the sta

nalysis (RCA) reports required by BAAQMD Reg 12:12.	Description: A Notice to Comply (NTC A43258) was issued by
Other:	Stopped: 11/22/2011 Emission Point(s):
AQMD: 12-12-406	Event Started: 11/22/2011 Abatement Device(s):
Permit:	Deviation No: 058-11 Source Number(s): 296; 398
May have resulted in a deviation from:	
inimize the risk of similar deviations in the future.	Corrective actions or ConocoPhillips has created an automated e-mail system to improve its internal communication capabilities and minimize the risk of similar deviations in the future preventative steps taken:
nal agency communications.	Probable Cause: Due to an internal communication breakdown, the excess was not timely reported to those responsible for external agency communications.
inimize the risk of similar deviations in the future.	ConocoPhillips has created an automated e-mail system to improve its internal communication capabilities and minimize the risk of similar deviations in the future
o an internal communication breakdown, the excess was day reports required pursuant to the Title V permit.	Event Description: An excess on Tank 281 occurred on 10/5/2011 at approximately 1:15 PM due to a pressure alarm failure. Due to an internal communication breakdown, the excess was not timely reported to those responsible for external agency communications, and therefore, the 10-day and 30-day reports required pursuant to the Title V permit. Section 23724(4) were not submitted within the required timeframes.
Other:	Stopped: 11/7/2011 8:00 AM Emission Point(s):
AQMD:	Event Started: 10/5/2011 1:15 PM Abatement Device(s):
Permit: 23724 Part 4	Deviation No: 055-11 Source Number(s): 174
May have resulted in a deviation from:	
	and department of the contraction of
	Corrective actions or The plug was replaced within an hour of discovery. preventative steps taken:
	Probable Cause: The plugs were removed for either maintenance or sampling and were not replaced.
alve triat was missing a prog. compournings repaired.	Event Description: During routine LDAR monitoring, technicians discovered an open-ended line (UEL) in Unit 80 on a 0.50° needle valve, triak was missing a plug. Collocornillos repaired the OEL by replacing the plug within an hour of discovery.
,	1
Other: 40 CFR 60 .482-6	Stopphed: 11/7/2011 2:00 PM Emission Point(s):
AOMD:	11/7/2011
Permit	OEA 11
May have resulted in a deviation from:	

preventative steps taken:

Event Started: 10/29/2011 4:00 PM Deviation No: 051-11 Stopped: 10/31/2011 12:30 PM Abatement Device(s): Source Number(s): 45 Emission Point(s): Other: AQMD: 1-522.4 Permit: May have resulted in a deviation from:

Event Description: The Unit 246 CEMs became inoperative on 10/29/2011, but, due to an inadvertent communications issue, ConocoPhillips did not report the monitor as inoperative the negative manufacture in the inoperative manufacture in the inoperative manufacture is a failed sample back pressure regulator. The regulator was replaced and the monitor was returned to

service.

Probable Cause: An inadvertent communications issue led to the inoperative monitor not being reported the next business day.

Corrective actions or Prompt communication of CEM issues was reviewed with relevant personnel.

preventative steps taken:

Other: 40 CFR 60 .482-6	Emission Point(s):	Stopped: 10/27/2011 2:53 PM
AQMD:	Abatement Device(s):	Event Started: 10/27/2011 2:44 PM
Permit:	Source Number(s): 304	Deviation No: 052-11
May have resulted in a deviation from:		

Event Description: <u>During routine LDAR monitoring technicians discovered an open-ended line (OEL) in Unit 229 on a 0.75" gate valve that was missing a plug. ConocoPhillips repaired the OEL within minutes of discovery.</u>

Probable Cause: The plugs were removed for either maintenance or sampling and were not replaced.

Corrective actions or The plug was replaced within minutes of discovery

preventative steps taken:

Other:		Emission Point(s):	3:10 PM	Stopped: 11/5/2011 3:10 PM
AQMD:	10000000000000000000000000000000000000	Abatement Device(s): 46	11:30 AM	Event Started: 11/5/2011 11:30 AM
Permit: 1694 E4		Source Number(s): 438		Deviation No: 053-11
May have resulted in a deviation from:				

Event Description: The U110 H-1 Heater CEMs indicated an excess of the NOx 1-hour average limit of 7 PPM corrected to 3% O2. The maximum NOx concentration recorded during the event was 25 ppm. There were 4 hours where the CEMs indicated an excess of the 1-hour rolling average on 11/5/11.

The excess occurred when the inlet line to the ammonia vaporizer plugged. The line was cleared and NOx emissions are now below permitted limits

Probable Cause: The ammonia vaporizer line plugged (with rust)

Corrective actions or The line was cleared preventative steps taken:

AQMD:	Abatement Device(s): 17	Event Started: 11/26/2011 10:00 AM
Permit: 1694 C 2	Source Number(s): 371; 372	Deviation No: 059-11
May have resulted in a deviation from:		

Event Description: On 11/26/11, the NOx CEMs at the U228 B-520/521 heater indicated an excess of the 3-hour average NOx limit of 20 ppm @ 3% O2. The indicated excess occurred for 13 hours from 10 am to 11 pm with a maximum value of \$1.8 ppm (BAAQMD ID 06C47).

On 11/30/11, the NOx CEMs at the U228 B-520/521 heater indicated an excess of the 3-hour average NOx limit of 20 ppm @ 3% O2. The indicated excess occurred for 2 hours from 11 am to 1 pm with a maximum value of 22.7 ppm (+13.5%) (BAAQMD ID 06C55).

discovered in the braided hose that feeds ammonia to the vaporizor. A temporary hose was fabricated and installed on 11/26/11. When the replacement braided The cause of the initial excess on 11/26/11 was plugging of the ammonia line to the ammonia vaporizor. When the line was pressurized to unplug it a hole was longer than expected and was not trouble-free, which resulted in the slight excess on 11/30/11. ose arrived, refinery personnel began the installation believing that it would be done quickly and without creating any compliance issues. However, the repair took

On 12/21/2011 the NOx CEMs at the U228 B-520/521 heater indicated an excess of the 3-hour average NOx limit of 20 ppm @ 3% O2. The indicated excess occurred ammonia injection nozzle. The existing nozzle contained a restricting point which contributed to plugging issues. for 3 hours from 11 am to 1 pm with a maximum value of 35.4 ppm (BAAQMD ID 06C79). This occurred during a maintenance activity to replace and upgrade the

Probable Cause: The line to the ammonia vaporizer plugged. When the line was pressurized to unplug it, a hole was discovered in the braided hose. The replacement line was not on hand resulting in a delay of the repair period. The existing nozzle contained a restricting point which contributed to plugging issues

preventative steps taken: restrictive area. Corrective actions or A temporary braided hose was fabricated until the replacement hose could arrive. On 12/21/11 the nozzle was upgraded to a model which does not contain the

Event Started: 11/30/2011 Deviation No: 061-11 Stopped: 11/30/2011 3:00 AM 8:00 AM Abatement Device(s): Source Number(s): Emission Point(s): AQMD: Permit: 22962,4,a Other: May have resulted in a deviation from:

Event Description: On 11/30/2011 the U246 B-801 A/B (S-45) Heater CEMs indicated an excess of the NOx 3-hour average limit of 5 PPM at 3% 02. The maximum NOx concentration in manual and could not auto-correct to a slight firing rate increase, resulting in an increase in NOx. The ammonia flow was increased when the excess was identified an during the event was 5.2 ppm (+4%). There were 5 hours where the CEMs indicated an excess of the 3-hour rolling average. The ammonia flow to the SCR was placed was later set to automatic

Probable Cause: The ammonia flow was set to manual and did not react with an slight increase in fining rate

preventative steps taken: Corrective actions or The ammonia flow was increased when the excess was identified and was later set to automatic

Marchano requited in a deviation from

a) that were missing place. The first three OEI's were	Event Description: Diving routing to DAD monitoring Comprophiling discovered four propended lines (OEI s) in the Coker Hait (1700) that were missing afters. The first three OEI is were	preset Description: During souting 1000 monitor
Other: 40 CFR 60 .482-6	Emission Point(s):	Stopped: 11/29/2011 12:00 PM
AQMD:	Abatement Device(s) :	Event Started: 11/28/2011 8:00 AM
Permit:	Source Number(s): 300	Deviation No: 062-11
ridy have resulted in a neviation from		

discovered on 11/28/201, two on 0.5" needle valves and the third was found on a sample station. The fourth OEL was discovered on 11/29/2011on a 0.75" gate valve. <u>None of the OEL's were leaking above the leak threshold of 100 ppm and all were repaired on the same day as discovery.</u>

Probable Cause: The plugs were removed for either maintenance or sampling and were not replaced

Corrective actions or The plugs/caps were replaced in a timely manner

preventative steps taken:

Other:	Emission Point(s):	Stopped: 12/8/2011 11:00 AM
AQMD:	Abatement Device(s):	Event Started: 12/5/2011 4:00 PM
Permit: 22962.4.a	Source Number(s): 45	Deviation No: 063-11
May have resulted in a deviation from:		

Event Description: On 12/5/2011, the Unit 246 B801 A/B heater (S-45) CEMs indicated an excess of the NOx limit of 5 ppmv at 3% O2 (3-hr average) beginning at 4:00 PM for a total of 64 hours (BAAQMD ID No 06C68). The maximum NOx concentration for this period was 75.4 ppmv. The excess occurred due to an unexpected shutdown of the Air

Liquide Hydrogen Plant which caused fresh feed to be removed from Unit 246.

Air Liquide supplies the hydrogen required to convert the heavy gas oil feed stocks at Unit 246 to a more desirable light hydrogarbon product. After the Air Liquide shutdown, Unit 246 was circulated after fresh feed was removed and the heaters were operated in a low firing mode which resulted in higher than typical excess O2 and E causing the loss of ammonia flow to the SCR and leading to elevated NOx concentrations, lower operating temperatures. During the period of excess there were times when the SCR inlet temperature dropped below the minimum operating temperature of 475

ConocoPhillips has received a permit to operate from the BAAQMD (Appl # 22671, 4/13/11) which includes an exemption from the NOx limit while there is no fresh feed to Unit 246 and the SCR inlet temperature is below 475 F. There were 16 hours during the excess period where the exemption in the permit to operate would have applied (i.e., there was no fresh feed and the SCR inlet temperature was below 475 F). An application to incoporate this permit to operate into the Title V permit has een submitted.

Probable Cause: The uplanned shutdown of the Air Liquide Hydrogen Plant caused feed to be pulled from Unit 246.

Corrective actions or Unit 246 was restarted as soon as practical which allowed the B-801 A/B heater to operate normally and comply with the NOx limit.

preventative steps taken:

		_	
Other: '	Ot	Emission Point(s):	Stopped: 12/8/2011
AQMD:	AQ	Abatement Device(s):	Event Started: 12/5/2011
Permit: 20989 Part B	Per	Source Number(s): 460	Deviation No: 065-11
May have resulted in a deviation from:	-		

Event Description: On 12/5/11, the Unit 250 diesel hydrotreater was shut down after the third-party Air Liquide Hydrogen Plant had an unexpected shutdown. Initially, ConocoPhillips believed that Unit 250 was put into circulation, which led us to initially conclude that the hydrotreater had not "shut down" as that phrase is defined in the refinery's Title / Permit, ConocoPhillips personnel spoke with BAAQMD Inspector John Swanson that same day regarding the upset at Air Liquide and resulting upset at the refinery and nformed him of our initial conclusion that Unit 250 was in circulation.

notification to BAAOMD was required. Notification of the shutdown was faxed to BAAOMD on 12/8/11. Upon further detailed review of the available data, we have concluded that the hydrotreater had "shut down" as that term is defined in the Title V Permit and that written

Probable Cause: Initially, ConocoPhillips believed that Unit 250 was put into circulation, which led us to initially conclude that the hydrotreater had not "shut down" as that phrase is lefined in the refinery's Title V Permit

preventative steps taken: Corrective actions or Upon further detailed review of the available data, we have concluded that the hydrotreater had "shut down" as that term is defined in the Title V Permit and that written notification to BAAOMD was required. Notification of the shutdown was faxed to BAAOMD on 12/8/11.

Event Started: 11/1/2011 Deviation No: 066-11 Stopped: 1/1/2012 Abatement Device(s): Source Number(s): Emission Point(s): 439 AQMD: Permit Other: May have resulted in a deviation from: 12124-1

Event Description: Tank 109 (\$439), which is in crude oil service, exceeded its rolling 12 month throughput limit of 3,650,000 barrets. ConocoPhillips is investigating the cause of this deviation and will take all appropriate steps to ensure that this deviation is not repeated.

Probable Cause: Changes in storage tank utilization led to a slight increase in throughput at Tank 109,

preventative steps taken: Corrective actions or The throughput at Tank 109 was reduced and is now in compliance with the throughput

May have resulted in a deviation from:

A SALAMA THE PROPERTY OF THE P
Event Started: 12/22/2011 11:00 AM Abatement Device(s): AQMD:
Stopped: 12/24/2011 5:00 AM

Event Description: On 12/22/2011, the Unit 246 B801 A/B heater (S-45) CEMs indicated an excess of the NOx limit of 5 ppmv at 3% O2 (3-hr average) beginning at 11:00 AM. The maximum NOx concentration for the period from 12/22 11:00 AM to 12/24/11 05:00 AM was 19.6 ppmv (BAAOMD ID No 06C80). The excess occurred due to an mitigated once Hydrogen production was restored. unexpected shutdown of the Air Liquide Hydrogen Plant which required the removal of fresh feed from Unit 246, and the Unit placed in hot standby. The excess was

Air Liquide supplies the hydrogen required to convert the heavy gas oil feed stocks at Unit 246 to a more desirable light hydrocarbon product. After the Air Liquide shutdown, Unit 246 was circulated after fresh feed was removed and the heaters were operated in a low firing mode which resulted in higher than typical excess O2 and lower operating temperatures.

Probable Cause: The uplanned shutdown of the Air Liquide Hydrogen Plant caused feed to be pulled from Unit 246.

preventative steps taken: Corrective actions or Unit 246 was restarted as soon as practical which allowed the B-801 A/B heater to operate normally and comply with the NOx limit.

BAAQMD Title V Permit

report the monitor as inoperative the next business day. Following its investigation regarding the equipment malfunction, ConocoPhillips concluded the Oximiter Transmitter portion of the O2 analyzer had failed and required repairs. ConocoPhillips promptly ordered a replacement. ConocoPhillips was unable to fix the inoperative monitor within the required 15 days due to the amount of time it took to receive the part from the manufacturer. Once the was received, ConocoPhillips promptly repaired the monitor and brought it back online (because the exact replacement control cards and transmitters at longer available, use of a suitable replacement required that some conduit and wiring changes were made which ConocoPhillips accomplished while awaiting receipt of the transmitter). In the interim, ConocoPhillips monitored the O2 levels several times per day with a portable analyzer.	7/6/2011 9:00 PM 8/15/2011 1:45 PM 12 038-11 7 Fuel CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA Lead Steam Flow Wind Dir.	operable monitors as defined by BAAQMD Regulations 1-522 and 1-523 for the reporting period are summarized below: Abatement arted Stopped Deviation # Source (S#) Device (A#)	A0016 ConocoPhillips Company. San Francisco Refinery Facility Address: Facility Address	6 Month Monitoring Report
1, but due to an inadvertent communications error, ConocoPhillips did not an regarding the equipment malfunction, ConocoPhillips concluded that the ConocoPhillips promptly ordered a replacement. ConocoPhillips was nt of time it took to receive the part from the manufacturer. Once the part online (because the exact replacement control cards and transmitters are no ring changes were made which ConocoPhillips accomplished while O2 levels several times per day with a portable analyzer.	Opacity/ Wind Gauge LTA Lead Steam Flow Wind Dir. Speed pH Temp. VOC. Press.	14 . 3	8 San Pablo Ave Phone: 1510) 245-4672	eport.

Event Description:		8/20/2011	Event Description:		8/18/2011	Event Description:		7/28/2011	Event Description:		7/22/2011	Started
tion: The U233 H2S CEM became inoperative on 8/20/2011 at 12:20 PM when a slide valve became stuck. The CEM was repaired on 8/22/2011 at 9:00 AM.	Fuel Opacity/ CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA CON GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA CON GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA	I 12:20 PM 8/22/2011 9:00 AM ☑ 045-11 338	Unit 244 B506 Parametric O2 moat 2:15 PM.	Fuel CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA CON CON CON CO2 H2O CO2 H2	9:00 AM 8/18/2011	Unit 240 B2 O2 monitor used for NOx removed.	Fuel CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA	1 11:43 AM 7/28/2011 12:46 PM 🗹 037-11 9	The Unit 250 B701 O2 monitor on the CEMs failed operation on 7/21/2011 at apservice at 2:24 PM.	Fuel Opacity/ CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA GOVERNMENT OF CO2 H2O LTA OPACITY	1:00 AM 7/22/2011 2:30 PM 🗹 035-11 461	Stopped Deviation # Source (S#)
ecame stuck. The CEM was repaired on 8/22/2	Wind Lead Steam Flow Wind Dir. Speed		rs were made and the monitor was returned to s	Wind Lead Steam Flow Wind Dir. Speed	1. 16. 19.187 电影响起源器探导。19.19.19.19.19.19.19.19.19.19.19.19.19.1	11:43 AM. The analyzer was checked out and the plugging was	Wind Lead Steam Flow Wind Dir. Speed		tely 1:00 AM. The O2 analyzer was repaired a	Wind Lead Steam Flow Wind Dir. Speed		Abatement Device (A#)
011 at 9:00 AM.	Gauge pH Temp. VOC. Press.		ervice on 8/18/11	Gauge pH Temp. VOC. Press.		the plugging was	Gauge pH Temp. VOC. Press.		ınd put back in	Gauge pH Temp. VOC. Press.		Emission Point (P#)

Event Description:		11/18/2011 4:08 F	Event Description:		11/14/2011 9:00	Event Description:	·	10/29/2011 4:00	Event Description:	·	9/10/2011	Started
Unit 246 B-801 A/B Nox monitor became inoperative on 11/18/2011 at 4:08 PM. Adjustments were made and the monitor was returned to service on 11/20/2011 at 5:30 AM.	Fuel Opacity/ Wind Gauge CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA Lead Steam Flow Wind Dir. Speed pH Temp. VOC. Press. Opacity/ Op	4:08 PM 11/20/2011 5:30 AM ☑ 057-11 45	GLM recorder at the Tormey site experienced a paper jam and data was not recorded der is once again operating properly.	Fuel Opacity/ Wind Gauge CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA Lead Steam Flow Wind Dir. Speed pH Temp. VOC. Press. Signature Signatur	9:00 AM 11/15/2011 11:00 AM ☑ 056-11	ne Unit 246 CEMs became inoperative on 10/29/2011; but, due to an inadvertent commoperative the next business day. The cause of the inoperative monitor was a failed samonitor was returned to service.	Fuel Opacity/ Wind Gauge CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA Lead Steam Flow Wind Dir. Speed pH Temp. VOC. Press. G G G G G G G G G G G G G G G G G G G	#1.00 PM 10/31/2011 12:30 PM 🗹 051-11 45	Unit 233 H2S CEMs	Fuel Opacity/ Wind Gauge CEM GLM Gas Parametric NOx SO2 CO H2S TRS NH3 O2 CO2 H2O LTA Lead Steam Flow Wind Dir. Speed pH Temp. VOC. Press. GO D D D D D D D D D D D D D D D D D D D	1 9/12/2011 8:32 AM 🗹 047-11 338	Abatement Emission Stopped Deviation # Source (S#) Device (A#) Device (A#)